
UNIVERSITI SAINS MALAYSIA

Second Semester Examination
2009/2010 Academic Session

April/May 2010

RMK 252 – Principles of Project Management
[Pengantar Pengurusan Projek]

Duration: 3 hours
[Masa: 3 jam]

Please check that this examination paper consists of SEVEN pages of printed material before you begin the examination.

Sila pastikan bahawa kertas peperiksaan ini mengandungi TUJUH muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

Students are allowed to answer all questions either in English OR in Bahasa Malaysia only.

Pelajar dibenarkan menjawab semua soalan dalam Bahasa Inggeris ATAU Bahasa Malaysia sahaja.

Answer **FIVE** questions only. **SECTION A** is **COMPULSORY**. Answer **TWO** questions from **SECTION B** and **TWO** questions from **SECTION C**.

*Jawab **LIMA** soalan sahaja. **BAHAGIAN A** adalah **WAJIB**. Jawab **DUA** soalan dari **BAHAGIAN B** dan **DUA** soalan dari **BAHAGIAN C**.*

In the event of any discrepancies, the English version shall be used.

Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan, versi Bahasa Inggeris hendaklah digunakan.

...2/-

BAHAGIAN A: (Compulsory)
SECTION A: (Wajib)

1. (a) What is management process? State and explain every element of management process?

Apakah dia proses pengurusan? Nyata dan terangkan setiap elemen proses pengurusan.

(5 marks/markah)

- (b) Name the **THREE** major theories during the Classical era and explain the key characteristics of the three theories.

*Namakan **TIGA** teori utama semasa era Klasikal dan terangkan ciri-ciri utama teori-teori tersebut?*

(5 marks/markah)

- (c) What is System theory? What is Contingency theory? How the two theories compliment each other?

Apakah teori Sistem? Apakah teori Kontingensi? Bagaimana kedua-dua teori tersebut menyokong antara satu sama lain?

(5 marks/markah)

- (d) What is general organizational Environment? How does this Environment influence the performance of every organization?

Apakah dia Alam Sekitar Am Organisasi? Bagaimanakah alam sekitar tersebut mempengaruhi prestasi organisasi?

(5 marks/markah)

SECTION B BAHAGIAN B

2. According to Barney and Griffin (1992), organizational goals serve **Four (4)** basic functions. Explain in detail what these four functions are and describe how these functions can make an organization more effective.

*Menurut Barney dan Griffin (1992), penetapan matlamat organisasi menyumbang terhadap **Empat (4)** fungsi asas. Jelaskan dengan terperinci keempat-empat fungsi tersebut serta bincangkan bagaimana fungsi-fungsi ini dapat menjadikan sesebuah organisasi tersebut lebih berkesan.*

(20 marks/markah)

3. (a) Describe the ways in which the formal structure of an organization can be defined and explained.

Huraikan bagaimana struktur formal sesebuah organisasi boleh dinyatakan serta dijelaskan.

(10 marks/markah)

- (b) Traditional organisational designs can be grouped into **Three (3)** basic designs of simple, functional and divisional. Elaborate on the strengths and weaknesses of each of these common traditional organizational designs.

*Struktur organisasi tradisional boleh dikategorikan kepada **Tiga (3)** rekabentuk asas, iaitu, rekabentuk mudah, mengikut fungsi serta mengikut jabatan/bahagian. Huraikan kelebihan serta kekurangan setiap rekabentuk organisasi tradisional lazim ini.*

(10 marks/markah)

4. (a) Give **Two (2)** definitions of motivation.

*Berikan **Dua (2)** definisi motivasi.*

- (b) Discuss any **Two (2)** management models with diagram and how these models can be applied in the construction industry.

*Huraikan mana-mana **Dua (2)** model pengurusan berikut beserta lakaran rajah dan bagaimana ianya dapat diaplikasikan dalam industri pembinaan.*

- (i) Behavioral Model
- (ii) Locus of Leadership
- (iii) Groups and Teams
- (iv) Abraham Maslow – Maslow's Hierarchy of Needs Theory

(20 marks/markah)

SECTION C BAHAGIAN C

5. (a) What is Precedence Diagram? Explain the advantages of Precedence Diagram in planning construction activities.

Apakah dia Rajah Rentetan? Terangkan kelebihan teknik Rajah Rentetan dalam perancangan kerja-kerja binaan.

(5 marks/markah)

- (b) Using the information given in **Table 1** and network diagram in **Figure 1**, draw a precedence diagram network and then fill up the boxes with the calculated values.

*Gunakan butir-butir yang diberi dalam **Jadual 1** dan rangkaian dalam **Rajah 1**, lakarkan rangkaian rajah rentetan dan isikan dalam kotak-kotak tersebut dengan nilai-nilai yang dikira.*

- (c) Draw a resource histogram using early start time (EST) values and level the resources accordingly to achieve an optimum aggregation.

Lakarkan histogram sumber mengikut nilai masa mula awal dan araskan semula supaya pengagihan sumber dalam keadaan optimum.

Activity Number/ Nombor Aktiviti	Activity Duration/ Jangka Masa Aktiviti	Number of Resources/ Jumlah Sumber	Activities Name/ Nama Aktiviti
1	2	3	Site clearing/Bersih tapak
2	7	4	Footing work/Kerja tapak
3	15	7	Structural work/Kerja struktur
4	8	4	Wall/Dinding
5	5	4	Doors & windows/Pintu & tingkap
6	5	3	Electrical work/Kerja elektrik
7	6	3	Piping work/Kerja paip
8	8	4	Roofing work/Kerja bumbung
9	8	4	Finishing work/Kerja kemasan
10	5	4	Painting work/Kerja cat
11	5	3	External work/Kerja luar

Table 1/Jadual 1

(15 marks/markah)

Question 5/Soalan 5

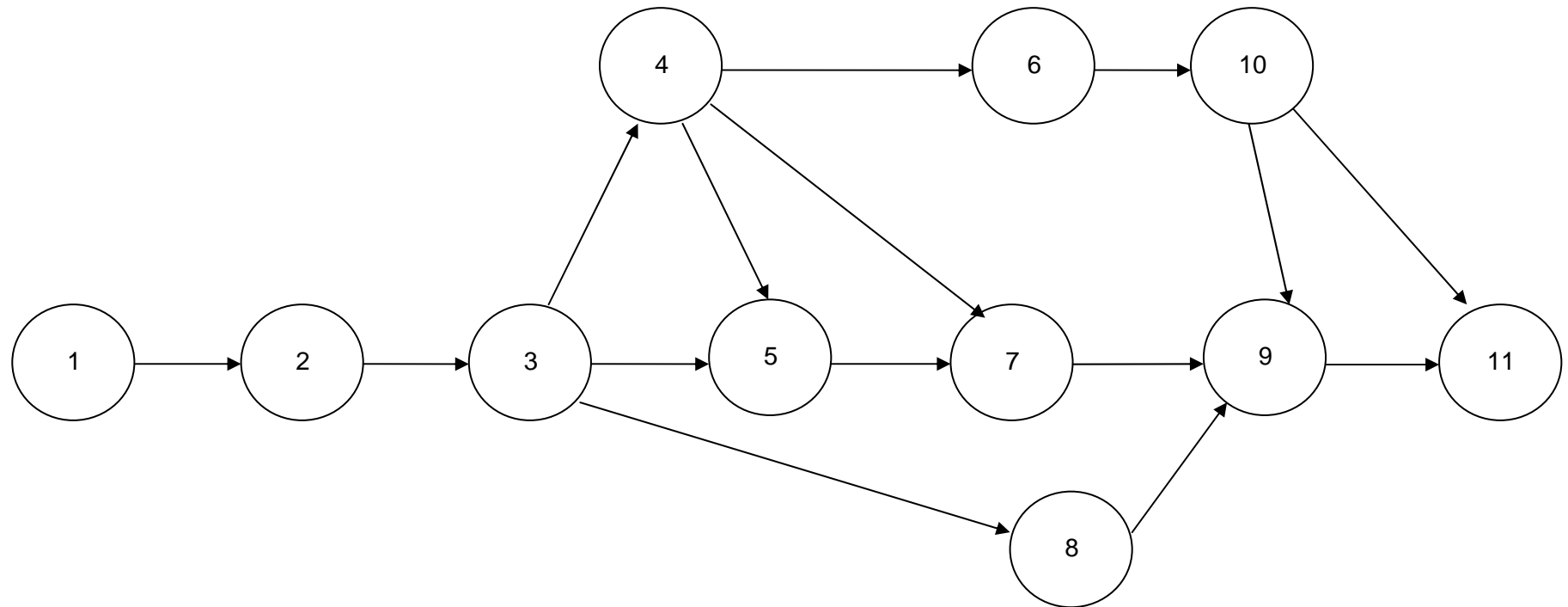


Figure 1/Rajah 1

- 6 -

6. (a) What is cash flow? Explain the advantages of the cash flow technique to contractors.

Apakah dia aliran tunai? Terangkan kelebihan teknik aliran tunai ini kepada kontraktor.

(5 marks/markah)

- (b) Prepare a Cash Flow table and a Cost-Time graph base on the following project details: -

Tender Price	:	195,000.00
Project Cost	:	150,000.00
Project Duration	:	6 month
Retention	:	5%
Defect Liability Period	:	6 month

Assume that the profit is equally distributed for the whole of project period and the progress payments are paid one month after contractor submitted their claims.

Sediakan Jadual Aliran Tunai dan Keluk Kos masa berdasarkan maklumat projek yang berikut:-

<i>Harga Tender</i>	<i>:</i>	<i>195,000.00</i>
<i>Kos Projek</i>	<i>:</i>	<i>150,000.00</i>
<i>Tempoh Projek</i>	<i>:</i>	<i>6 bulan</i>
<i>Nilai Simpanan</i>	<i>:</i>	<i>5%</i>
<i>Tempoh membaiki kecacatan</i>	<i>:</i>	<i>6 bulan</i>

Andaikan keuntungan diagih sama rata sepanjang tempoh projek dan bayaran kemajuan dibayar sebulan selepas tuntutan.

(15 marks/markah)

7. (a) What is a line of balance technique? Explain the advantages of this technique to construction?

Apakah dia teknik garisan seimbang? Terangkan kelebihan teknik garisan seimbang kepada binaan.

(5 marks/markah)

- (b) Prepare a Line of Balance Chart for a housing scheme with the following details in **Table 2:-**

*Sediakan satu Carta Garisan Seimbang untuk satu skim perumahan berdasarkan butir-butir berikut dalam **Jadual 2:-***

No./ Bil.	Activities/ Aktiviti	Man hour/Unit Jam Kerja/Unit	Number of workers per activity/Bilangan pekerja setiap aktiviti
1	Foundation/Asas	210	5
2	Structure/Struktur	320	6
3	Wall/Dinding	180	4
4	Pipe/Paip	80	3
5	Electricity/Elektrik	80	3
6	Finishing/Kemasan	140	6

Table 2/Jadual 2

Other details/Butir-butir lain:-

- Number of unit/*Bilangan unit rumah* = 90 unit
- Rate of output/*Kadar output* = 4 unit per week/
minggu
- Buffer time/*Masa perantaraan* = 5 days/*hari*
- Working hours, 8 hours per day and 6 days per week/*masa kerja 8 jam sehari dan 6 hari seminggu.*

(15 marks/markah)